



Fesoterodine

Updated: July 7, 2017.

OVERVIEW

Introduction

Fesoterodine is an anticholinergic and antispasmodic agent used to treat urinary incontinence and overactive bladder syndrome. Fesoterodine has not been implicated in causing liver enzyme elevations or clinically apparent acute liver injury.

Background

Fesoterodine (fes" oh ter' oh deen) is anticholinergic agent which blocks the muscarinic acetylcholine receptors, particularly those found in the smooth muscle of the bladder. Fesoterodine increases bladder capacity and decreases bladder contractions and the urgency of urination. Fesoterodine is formulated in an extended release formulation and has a quarternary ammonium group that makes it less likely to cross the blood brain barrier. Fesoterodine was approved for use in the United States in 2008, and indications include urinary urge incontinence and overactive bladder syndrome. Fesoterodine is available in tablets of 4 and 8 mg under the brand name Toviaz. The recommended adult oral dose is 4 to 8 mg once daily. Common side effects are those of parasympathetic stimulation and include dryness of the mouth and eyes, decreased sweating, headache, visual blurring, constipation, and urinary retention. Because of its structure, fesoterodine is believed to be less likely than other anticholinergic agents to cause central nervous system effects such as restlessness, confusion and hallucinations. Anticholinergic agents can precipitate acute narrow angle glaucoma and acute urinary retention.

Hepatotoxicity

Like most anticholinergic agents, fesoterodine has not been linked to episodes of liver enzyme elevations or clinically apparent liver injury. Fesoterodine is metabolized in the liver via the cytochrome P450 system (CYP 2D6 and 3A4). Its relative safety may relate to its relatively low daily dose.

References on the safety and potential hepatotoxicity of anticholinergics are given together after the Overview section on Anticholinergic Agents.

Drug Class: [Anticholinergic Agents](#)

PRODUCT INFORMATION

REPRESENTATIVE TRADE NAMES

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Fesoterodine – Toviaz®

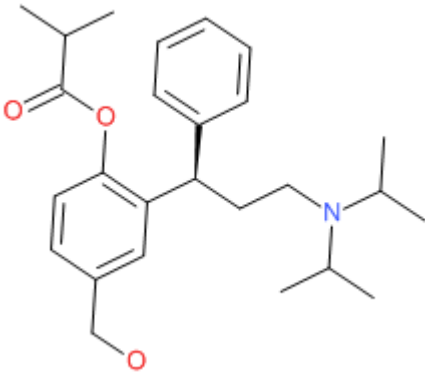
DRUG CLASS

Anticholinergic Agents

COMPLETE LABELING

Product labeling at DailyMed, National Library of Medicine, NIH

CHEMICAL FORMULA AND STRUCTURE

DRUG	CAS REGISTRY NUMBER	MOLECULAR FORMULA	STRUCTURE
Fesoterodine	286930-02-7	C ₂₆ H ₃₇ N-O ₃	 The chemical structure of Fesoterodine is shown. It consists of a central carbon atom bonded to a phenyl ring, a propyl chain, and a 4-(3-methoxyphenyl)butanoate group. The propyl chain is further substituted with a diisopropylamino group. The oxygen atoms in the ester and ether groups are highlighted in red, and the nitrogen atom is highlighted in blue.